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# 288J  
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COPYRIGHT AND  
RELATED INTELLECTUAL  
PROPERTY LAW

PATENT AGENT  
STEVEN J. SOLOMON

February 27, 2002

Commissioner for Patents  
Washington, D.C. 20231

CERTIFICATE

MAR 12 2002

OF CORRECTION

Re: U.S. Patent No. 6,287,704 Issued September 11, 2001

Title: CHROMIUM (VI)-FREE CONVERSION LAYER AND METHOD FOR  
PRODUCING IT

Inventors: Patricia Preikschat, et al.

Our Docket: 31716

Sir:

A Certificate of Correction under 35 U.S.C. 254 is hereby requested to correct Patent Office printing errors in the above-identified patent. Enclosed herewith is a proposed Certificate of Correction (Form No. PTO-1050) for consideration.

It is requested that the Certificate of Correction be completed and mailed at an early date to the undersigned attorney of record.

Respectfully submitted,

By: John P. Murtaugh  
John P. Murtaugh, Reg. No. 34226

JPM/me

Enclosures: Form PTO-1050 in duplicate

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on the date indicated below.

John P. Murtaugh

Name of Attorney for Applicant(s)

2-28-02 John P. Murtaugh

Date

Signature of Attorney

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(Also Form PTO-1050)

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,287,704  
DATED : September 11, 2001  
INVENTOR(S) : Patricia Preikschat, et al.

Page 1 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Cover Page, Section (54), delete "CHROMATE-FREE CONVERSION LAYER AND PROCESS FOR PRODUCING THE SAME" and insert therefore -CHROMIUM(VI)-FREE CONVERSION LAYER AND METHOD FOR PRODUCING IT-.

On the Cover Page, Section (30), delete "196 15 664" and insert therefor -196 15 664.5-.

On the Cover Page, Section (56) (Other Publications), second reference, line 2, after "London, GB;" insert -Class E31,-.

Column 1, delete lines 1, 2 & 3 and insert therefor -CHROMIUM(VI)-FREE CONVERSION LAYER AND METHOD FOR PRODUCING IT-.

Column 2, line 22, delete "1.5.µm" and insert therefor -1.5 µm-.

Column 3, line 2, delete "protection>100" and insert therefor -protection > 100-.

Column 3, line 58, after "FIG. 4" insert -,.

Column 4, line 57, delete "layer>1%" and insert therefor -layer > 1%-.

MAILING ADDRESS OF SENDER:

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PATENT NO. 6,287,704

No. of additional copies

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Burden Hour Statement: This form is estimated to take 1.0 hour to complete. Time will vary depending upon the needs of the individual case. Any comment on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,287,704  
DATED : September 11, 2001  
INVENTOR(S) : Patricia Preikschat, et al.

Page 2 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 6, line 61, delete "chromium (III)" and insert therefor ~~chromium(III)~~.

Column 7, line 18, before "Chromium (III)" begin a new paragraph.

Column 7, line 51, delete " $\text{CrCl}_3 \cdot 6\text{H}_2\text{O}$ " and insert therefor  ~~$\text{CrCl}_3 \cdot 6 \text{H}_2\text{O}$~~ .

Column 8, line 42, delete " $\text{K}_1$ " and insert therefor  ~~$k_1$~~ .

Column 8, line 48, delete " $\text{Zn}^{2+} + x\text{Cr}^{(\text{III})} + y\text{H}_2\text{O} \rightarrow \text{ZnCr}_x\text{O}_y + 2y \text{H}^+$ " and insert therefor  ~~$\text{Zn}^{2+} + x\text{Cr}^{(\text{III})} + y\text{H}_2\text{O} \rightarrow \text{ZnCr}_x\text{O}_y + 2y \text{H}^+$~~ .

Column 8, line 51, delete " $\text{H}^+, \text{Cr}^{(\text{III})}$ " and insert therefor  ~~$\text{H}^+, \text{Cr}^{(\text{III})}$~~ .

Column 8, line 54, delete " $1/(1+p_1 \cdot m_{\text{ZnCrO}})^2$ " and insert therefor  ~~$1/(1+p_1 \cdot m_{\text{ZnCrO}})^2$~~ .

Column 8, line 59, delete " $k_1 \times c_{\text{H}} + / a + p_1 \times m_{\text{ZnCrO}})^2 -$ " and insert therefor  ~~$k_1 \times c_{\text{H}} + / (1 + p_1 \times m_{\text{ZnCrO}})^2 -$~~ .

Column 8, line 60, before " $k_2$ " insert ~~---~~.

Column 8, line 60, after " $x \tanh(p_2 \times m_{\text{ZnCrO}})$ " delete ~~- + -~~.

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,287,704  
DATED : September 11, 2001  
INVENTOR(S) : Patricia Preikschat, et al.

Page 3 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 8, line 61, before " $k_T$ " insert  $-+-$ .

Column 8, line 62, delete " $a$ " and insert therefor  $-(1-$ .

Column 8, line 62, after " $p_1 \times m_{ZnCrO}$ )<sup>2</sup>" delete  $- + -$ .

Column 8, line 63, before " $2yk_2$ " insert  $-+-$ .

Column 8, line 63, delete " $x \ 3_{H+}$ " and insert therefor  $-xc_H + -$ .

Column 8, line 63, after " $x \tanh(p_2 \times m_{ZnCrO})$ " delete  $-+-$ .

Column 9, line 2, before " $k_T$ " insert  $-+-$ .

Column 9, line 4, after " $x \tanh(p_2 \times m_{ZnCrO})$ " delete  $- + -$ .

Column 9, line 6, before " $k_T$ " insert  $-+-$ .


Column 9, line 6, delete second occurrence of " $- c_{Cr}^{(III)}$ "

Column 9, line 12, delete " $\tan h(p_2 \cdot m_{ZnCrO})$ " and insert therefor  $-\tanh(p_2 \cdot m_{ZnCrO})-$ .

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PATENT NO. 6,287,704

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,287,704  
DATED : September 11, 2001  
INVENTOR(S) : Patricia Preikschat, et al.

Page 4 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 9, line 13, after "reaction II" insert  $-, -$ .

Column 9, line 14, delete "tan h" and insert therefor  $-\tanh-$ .

Column 9, line 29, delete "kj" and insert therefor  $-kj-$ .

Column 10, line 60, delete " $\text{CrCl}_3 \cdot 6$ " and insert therefor  $-\text{CrCl}_3 \cdot 6-$ .

Column 11, line 12, delete " $\text{CrCl}_3 \cdot 6$ " and insert therefor  $-\text{CrCl}_3 \cdot 6-$ .

Column 12, line 2, delete "60 s." and insert therefor  $-60s.-$ .

Column 12, line 17, delete "60 s." and insert therefor  $-60s.-$ .

Column 12, line 37-38, delete "chromium (VI)" and insert therefor  $-\text{chromium(VI)}-$ .

Column 13, line 12, delete "0.00" and insert therefor ".00".

Column 15, line 28, after "O" insert  $-, -$ .

MAILING ADDRESS OF SENDER: John P. Murtaugh  
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PATENT NO. 6,287,704

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UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,287,704 B1  
DATED : September 11, 2001  
INVENTOR(S) : Patricia Preikschat et al.

Page 2 of 2

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 9,

Lines 2 and 6, before " $k_T$ " insert -- + --.  
Line 4, after " $x \tanh(p_2 \times m_{ZnCrO})$ " delete "+".  
Line 6, delete second occurrence of " $-c_{Cr}^{(III)}$ ".  
Line 12, delete " $\tan h(p_2 \cdot m_{ZnCrO})$ " and insert therefor --  $\tanh(p_2 \cdot m_{ZnCrO})$  --.  
Line 13, after "reaction II" insert -- , --.  
Line 14, delete " $\tan h$ " and insert therefor --  $\tanh$  --.  
Line 29, delete " $k_j$ " and insert therefor --  $k_j$  --.

Column 10,

Line 60, delete " $CrCl_3.6$ " and insert therefor --  $CrCl_3 \cdot 6$  --.

Column 11,

Line 12, delete " $CrCl_3.6$ " and insert therefor --  $CrCl_3 \cdot 6$  --.

Column 12,

Lines 2 and 17, delete "60 s." and insert therefor -- 60s. --.  
Lines 37-38, delete "chromium (VI)" and insert therefor -- chromium(VI) --.

Column 13,


Line 12, delete "0.00" and insert therefor -- .00 --.

Column 15,

Line 28, after "O" insert -- , --.

Signed and Sealed this

Fifteenth Day of April, 2003



JAMES E. ROGAN  
Director of the United States Patent and Trademark Office

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,287,704 B1  
DATED : September 11, 2001  
INVENTOR(S) : Patricia Preikschat et al.

Page 1 of 2

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page, Item [54] and Column 1, lines 1-3,

Delete "**CHROMATE-FREE CONVERSION LAYER AND PROCESS FOR PRODUCING THE SAME**" and insert therefor -- **CHROMIUM (VI)-FREE CONVERSION LAYER AND METHOD FOR PRODUCING IT** --.

Item [56], OTHER PUBLICATIONS, second reference, after "London, GB;" insert -- Class E31, --.

Column 2,

Line 22, delete "1.5.µm" and insert therefor -- 1.5 µm --.

Column 3,

Line 2, delete "protection>100" and insert therefor -- protection > 100 --.

Line 58, after "FIG. 4" insert -- , --.

Column 4,

Line 57, delete "layer>1%" and insert therefor -- layer > 1% --.

Column 6,

Line 61, delete "chromium (III)" and insert therefor -- chromium(III) --.

Column 7,

Line 18, before "Chromium (III)" begin a new paragraph.

Line 51, delete "CrCl<sub>3</sub> .6H<sub>2</sub>O" and insert therefor -- CrCl<sub>3</sub> • 6 H<sub>2</sub>O --.

Column 8,

Line 42, delete "K<sub>1</sub>" and insert therefor -- k<sub>1</sub> --.

Line 48, delete " $\text{Zn}^{2+} + x\text{Cr}^{(\text{III})} + y\text{H}_2\text{O} \rightarrow \text{ZnCr}_x\text{O}_y + 2y\text{H}^+$ " and insert therefor --  $\text{Zn}^{2+} + x\text{Cr}^{(\text{III})} + y\text{H}_2\text{O} \rightarrow \text{ZnCr}_x\text{O}_y + 2y\text{H}^+$  --.

Line 51, delete " $\text{H}^+, \text{Cr}^{(\text{III})}$ " and insert therefor --  $\text{H}^+, \text{Cr}^{(\text{III})}$  --.

Line 54, delete " $1/(1+p_1 \cdot m_{\text{ZnCrO}})^2$ " and insert therefor --  $1/(1+p_1 \cdot m_{\text{ZnCrO}})^2$  --.

Line 59, delete " $k_1 \times c_{\text{H}} + / a + p_1 \times m_{\text{ZnCrO}})^2$ " and insert therefor --  $k_1 \times c_{\text{H}} + / (1 + p_1 \times m_{\text{ZnCrO}})^2$  --.

Line 60, before "k<sub>2</sub>" insert -- - --.

Lines 60, after " $x \tanh(p_2 \times m_{\text{ZnCrO}})$ " delete "+".

Line 61, before "k<sub>T</sub>" insert -- + --.

Line 62, delete "a" and insert therefor -- (1 --.

Line 62, after " $p_1 \times m_{\text{ZnCrO}})^2$ " delete "+".

Line 63, before "2yk<sub>2</sub>" insert -- + --.

Line 63, delete " $x \text{ 3H}^+$ " and insert therefor --  $x c_{\text{H}} +$  --.

Line 63, after " $x \tanh(p_2 \times m_{\text{ZnCrO}})$ " delete "+".